

Amendments to the Claims:

1. (Currently Amended) A method for ~~attaching and/or maintaining~~ culturing primary liver cells comprising:

(a) providing a polymer composition comprising a CAR material, and one or more ECM proteins and a polycationic polymer bound to said CAR material, wherein said CAR material, ~~and said one or more ECM proteins, and said polycationic polymer~~ thereby form a cell adhesion promoting surface; and

(b) incubating said liver cells in the presence of said surface in a medium that supports ~~the~~ growth and/or maintenance of said liver cells, such that said liver cells attach to said surface;

thereby culturing said liver cells. ~~wherein the liver cells attach to said surface and are maintained in a functional state.~~

2. (Previously Presented) The method of claim 1 wherein said one or more ECM proteins are selected from the group consisting of collagen I, collagen III, collagen IV, collagen VI, laminin, elastin vitronectin and fibronectin.

3. (Previously Presented) The method of claim 2 wherein said one or more ECM proteins are selected from the group consisting of elastin, collagen I, collagen IV, and collagen VI.

4. (Canceled)

5. (Canceled)

6. (Currently Amended) The method of ~~claim 5~~ claim 1, wherein the said polycationic polymer is selected from the group consisting of polyethyleneimine (PEI), poly-D-lysine (PDL), poly-L-lysine (PLL), poly-D-ornithine (PDO) and poly-L-ornithine (PLO).

7. (Currently Amended) The method of ~~claim 4~~ claim 1, wherein said one or more ECM proteins and said ~~active factor~~ polycationic polymer are noncovalently bound to said CAR material.

8. (Currently Amended) The method of ~~claim 4~~ claim 1, wherein ~~the~~ said one or more ECM ~~protein~~ proteins and ~~active factor~~ said polycationic polymer are covalently bound to said CAR material.

9. (Withdrawn) The method of claim 2 wherein said one or more ECM proteins are elastin and collagen VI.

10. (Currently Amended) The method of ~~claim 4 where the ECM protein~~ claim 1, wherein said one or more ECM proteins is collagen I and ~~the active factor~~ said polycationic polymer is poly-L-ornithine.

11. (Withdrawn-currently amended) The method of ~~claim 4 wherein the ECM protein~~ claim 1, wherein said one or more ECM proteins is collagen IV and ~~the active factor~~ said polycationic polymer is poly-L-ornithine.

12. (Original) The method of claim 1 wherein said CAR material is selected from the group consisting of hyaluronic acid (HA), alginic acid (AA), polyethylene glycol (PEG), polyethylene oxide (PEO), and polyhydroxyethyl methacrylate (poly-HEMA).

13. (Original) The method of claim 12 wherein the CAR material is HA.

14. (Previously Presented) The method of claim 1 wherein said one or more ECM proteins are in the form of a 3-dimensional (3D) scaffold.

15 (Previously Presented) The method of claim 1 wherein said polymer composition is a flexible material.

16. (Original) The method of claim 15 wherein the flexible material is a polydimethyl siloxane (PDMS) or other silicone-based polymer.

17-57. (Canceled)

58. (Currently Amended) A method for ~~attaching and/or maintaining~~ culturing primary liver cells comprising:

(a) providing a polymer composition comprising a CAR material, and collagen I and poly-L-ornithine bound to said CAR material, wherein said CAR material, collagen I and poly-L-ornithine thereby form a cell adhesion promoting surface; and

(b) incubating said liver cells in the presence of said surface in a medium that supports ~~the~~ growth and/or maintenance of said liver cells, such that said liver cells attach to said surface;

thereby culturing said liver cells.~~wherein the liver cells are maintained in a functional state.~~

59. (Withdrawn-currently amended) A method for ~~attaching and/or maintaining~~ culturing primary liver cells comprising:

(a) providing a polymer composition comprising a CAR material, and collagen IV and poly-L-ornithine bound to said CAR material, wherein said CAR material, collagen IV and poly-L-ornithine thereby form a cell adhesion promoting surface; and

(b) incubating said liver cells in the presence of said surface in a medium that supports ~~the~~ growth and/or maintenance of said liver cells, such that said liver cells attach to said surface;

thereby culturing said liver cells.~~wherein the liver cells are maintained in a functional state.~~

60. (Withdrawn-currently amended) A method for ~~attaching and/or maintaining~~ culturing primary liver cells comprising:

(a) providing a polymer composition comprising a CAR material, and collagen VI and elastin bound to said CAR material, wherein said CAR material, collagen VI and elastin thereby form a cell adhesion promoting surface; and

(b) incubating said liver cells in the presence of said surface in a medium that supports ~~the~~ growth and/or maintenance of said liver cells, such that said liver cells attach to said surface;

thereby culturing said liver cells. ~~wherein the liver cells are maintained in a functional state.~~

61. (Previously Presented) The method of claim 1 wherein the cells are rat primary liver cells or human primary liver cells.

62. (New) The method of claim 1, wherein said liver cells are maintained in a functional state.

63. (New) The method of claim 62, wherein said liver cells secrete albumin.

64. (New) The method of claim 62, wherein said liver cells maintain cytochrome P-450 activity.

65. (New) The method of claim 58, wherein said liver cells are maintained in a functional state.

66. (New) The method of claim 65, wherein said liver cells secrete albumin.

67. (New) The method of claim 65, wherein said liver cells maintain cytochrome P-450 activity.